# This project was funded by The Alabama Department of Environmental Management through a Clean Water

Act Section 319(h) nonpoint source grant provided by the US Environmental Protection Agency - Region 4.

### The Moore's Mill Creek Stream Stabilization Project: "Going with the Flow"



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Executive Director
AL Clean Water Partnership

ADEM Nonpoint Source Conference January 17, 2013 Montgomery, AL

# ACWP Strategy

Bring interested citizens and water users together through a neutral forum in order to identify water related issues and challenges and become part of the solution for long-term water quality improvement and conservation in a non-regulatory way.

#### Moore's Mill Creek

- Located in the Tallapoosa River Basin, Lee
   County, Alabama
- 303(d) listed for siltation (sediment) from confluence with Chewacla Creek to its source (approximately 10.51 miles)
  - Historic channelization, lack of riparian buffers and urbanization of the watershed have all led to reach-wide instability
- Source: Moore's Mill Creek Watershed Plan, Wildlands Engineering, 2008



## Project Goals:

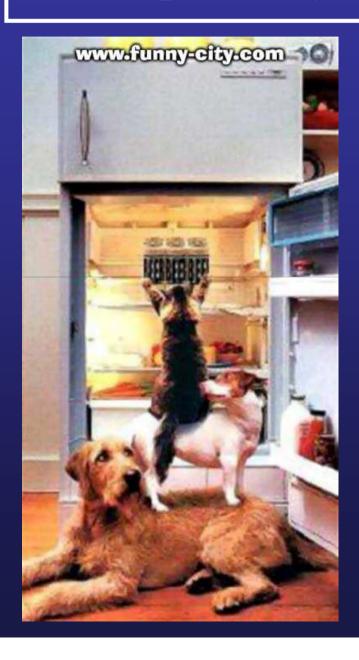
- Reduce Bank Erosion
- Reduce Sedimentation
- Improve Water Quality
- Improve Stream Habitat
- · Improve Riparian Buffer
- · Increase Water Oxygen Content
- · Provide Educational Opportunities
- Establish an Auburn Business Partners for Clean Water Program (designed to educate, build partnerships, and provide positive public relations with local businesses working for clean water)

# Project Deliverables and Outputs:

- Development of a watershed-based management plan for Moore's Mill Creek
- Development and implementation of sitespecific natural stream channel design plans and specifications
- Restoration of approximately 12,400 linear feet of Moore's Mill Creek and several tributaries to Moore's Mill Creek

- Establishment of a "show-case" natural channel design demonstration site for the private and public sectors
- Demonstration tours and presentations of Best Management Practices for Golf Courses that address fertilizer application, pest control, clipping management and disposal, and water quality protection.
- Local watershed and statewide education (signage, guided tours, meeting presentations, etc.) and training for students, developers, government officials, etc.

# TEAMWORK = SUCCESS



- Create Win/WinOpportunities
- · Strength in Numbers
  - · Diversity Rules
- · All Expertise Welcomed
  - · Listen First
  - ·Say What you Mean
  - · Coordination Counts

### Project Partners:

- Alabama Department of Environmental Management
  - Alabama Clean Water Partnership
- · Wildlands Engineering (formerly ACER)
  - · Cleveland Brothers Construction
- · Lower Tallapoosa Clean Water Partnership
  - City of Auburn
- Auburn University Landscape Architecture
   Department
  - Alabama Cooperative Extension System
    - Assorted local stakeholder groups

# Stream Restoration Using Natural Channel Design - Moore's Mill Creek, Auburn

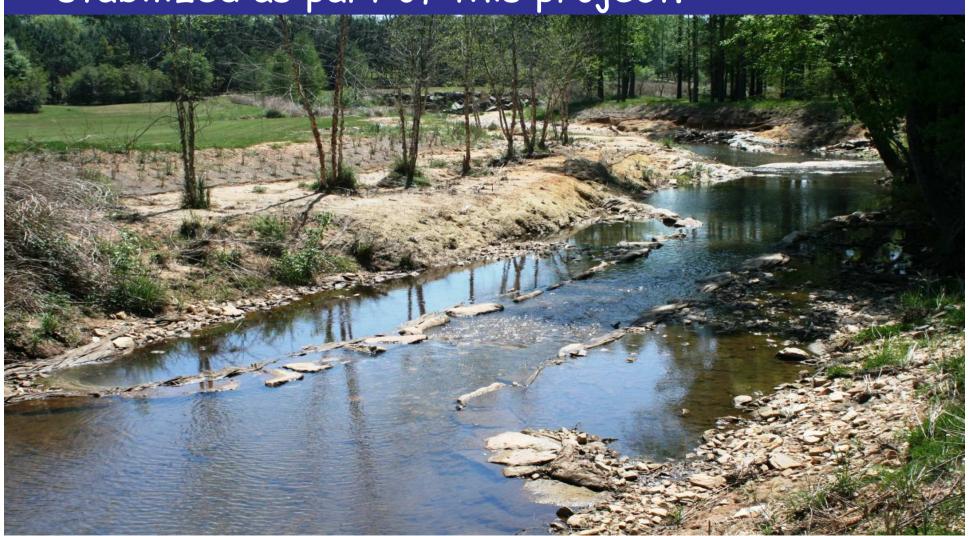
A total of 28 individual structures were installed as part of the project:

- 11 rock vanes
- 5 log vanes
- 1 boulder cluster
- 5 root wads
- 1 cross vane
- 1 single-wing deflector
- 3 double-wing deflectors
- 1 rock J-hook



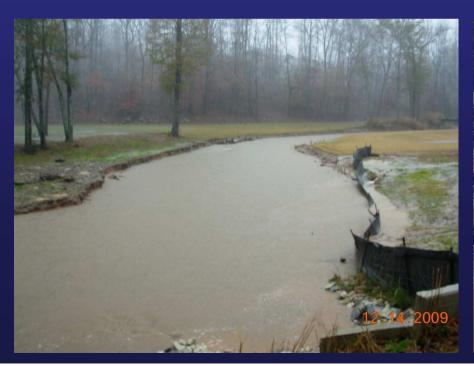


 In addition, a bankfull bench cut was installed along 2,492 linear feet of the stream, for a total of 5,756 linear feet of streambank stabilized as part of this project.



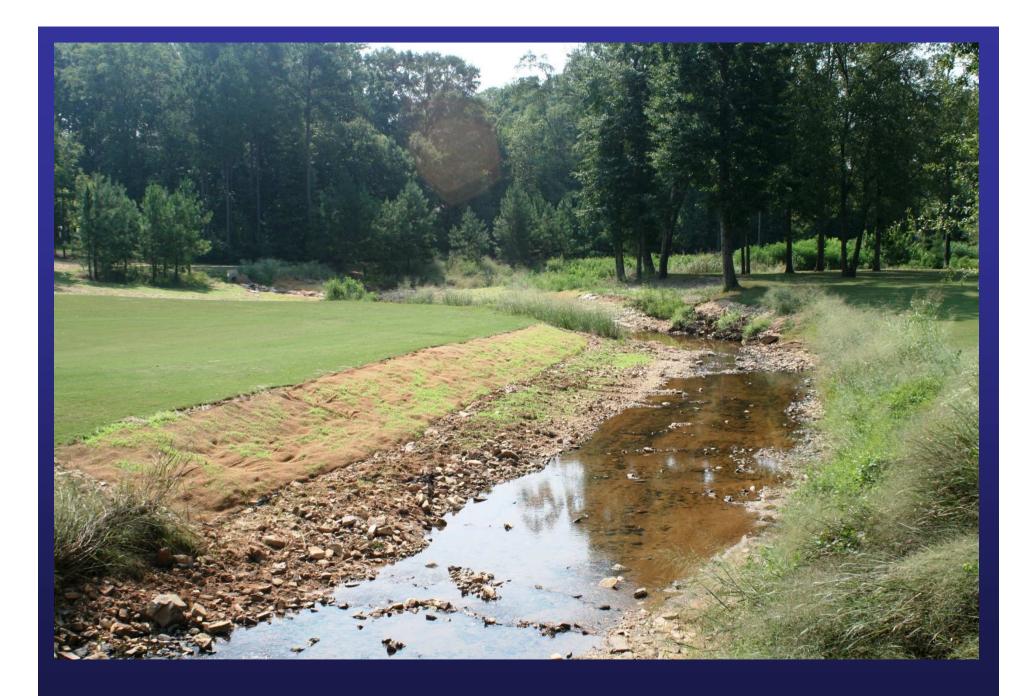




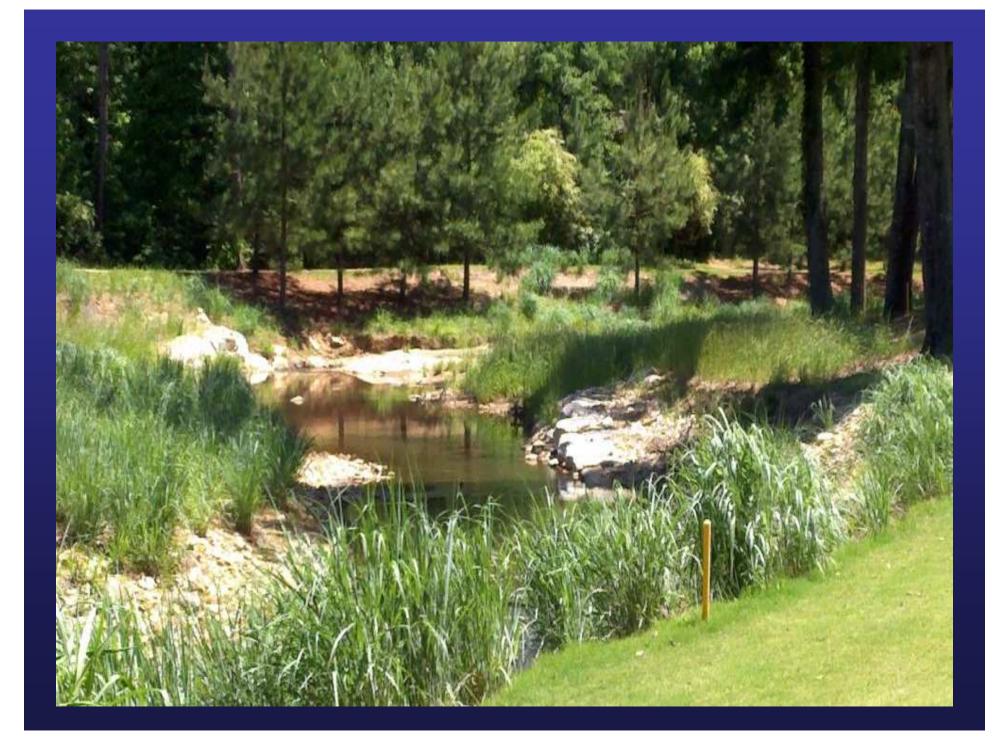


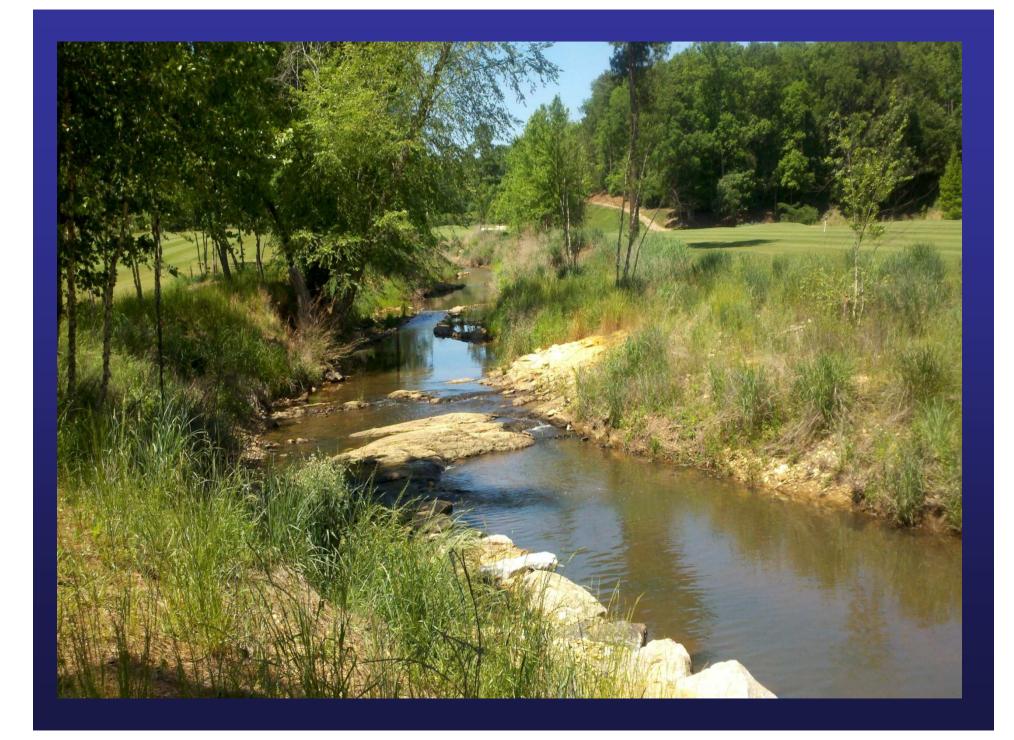




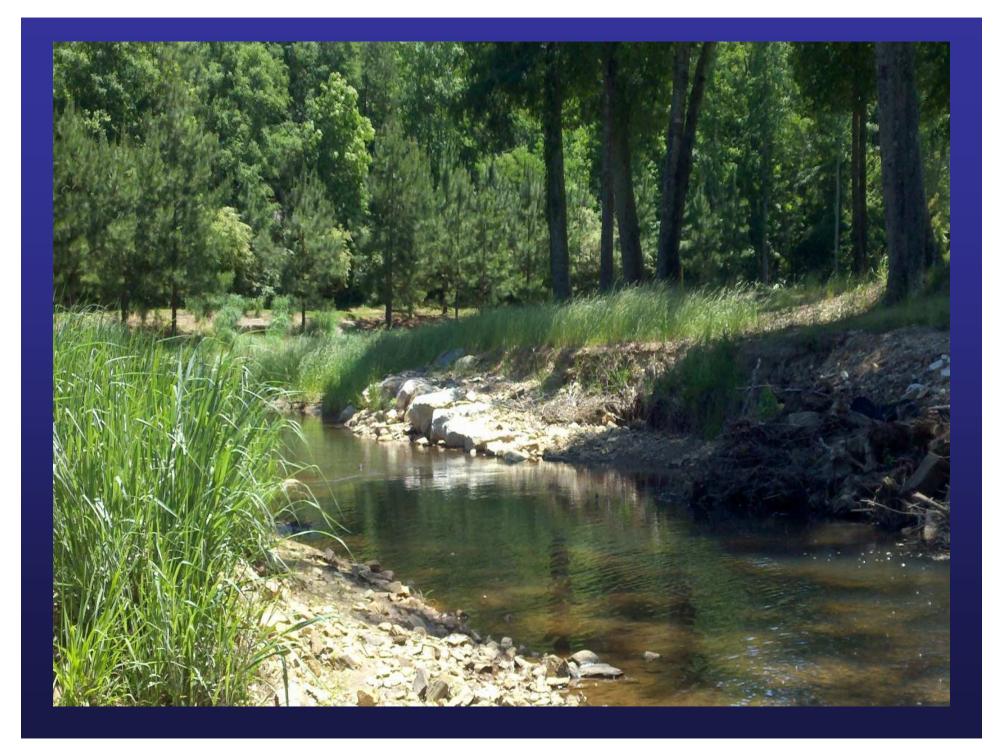


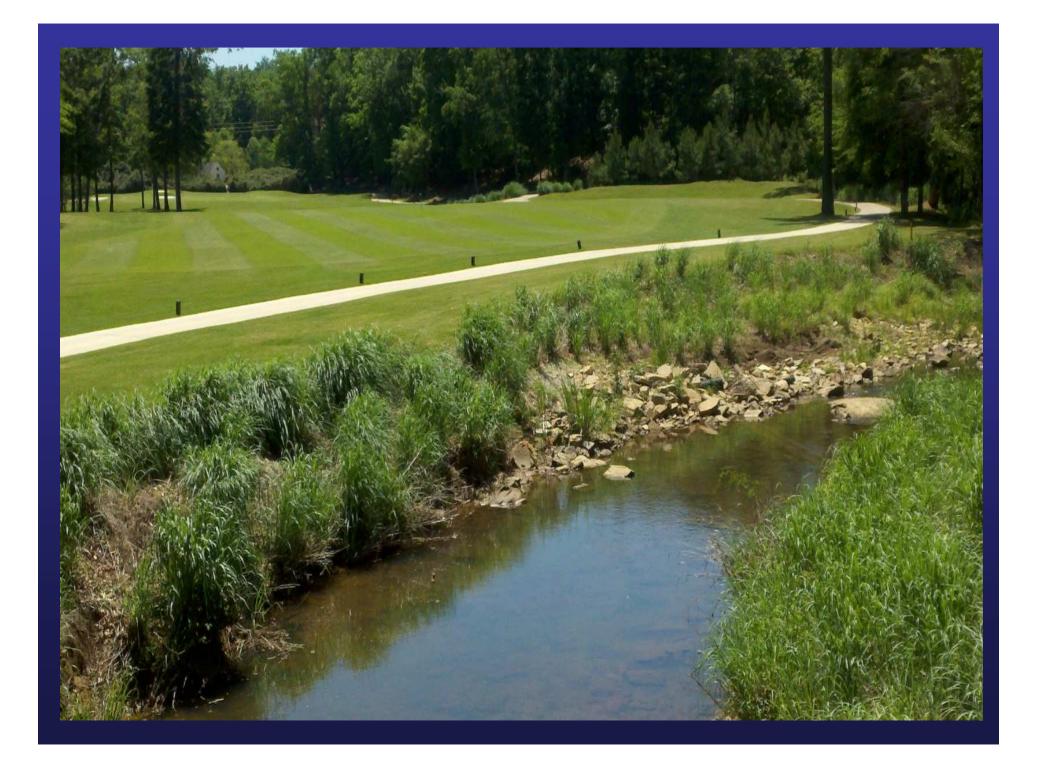
















Lee County Business Partners for Clean Water

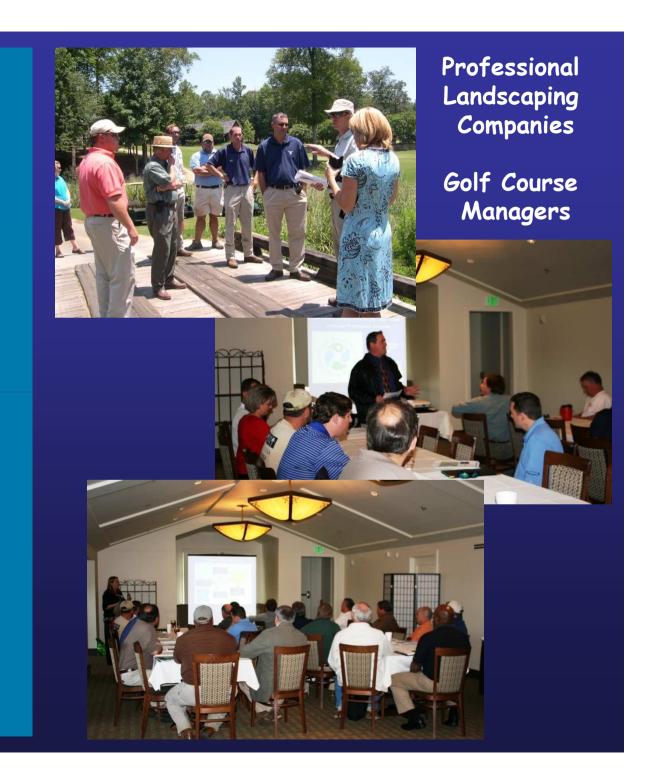
The Tallapoosa River Clean Water Partnership Congratulates

Bio Green USA
Blackjack Horticulture Inc.
Bodine's Landscape Service
Creative Habitats
Down To Earth Landscaping Inc.
Erosion Pros, LLC
Flora Terra, LLC
Lake Lawns, LLC
Landscape Workshop, Inc.
Tip Top Lawn Care & Repair
TruGreen ChemLawn
Wondrous Works, LLC



Appreciation is extended to the following partners for their support of this program

Cities of Auburn and Opelika, Alabama Clean Water
Partnership, Alabama Cooperative Extension System, Alabama
Department of Environmental Management, Alabama Farmers
Federation, Alabama Nursery and Landscape Association,
Alabama Turfgrass Association, Auburn University of
Agronomy and Soils, Auburn University Department of
Industrial Design, Cleveland Brothers Construction, Moore's
Mill Golf Club and the Saugahatchee Watershed Management
Plan (SWaMP) Implementation Project.













#### Unanticipated Project Challenges

- The Drought of 2007 -2008; Floods of 2009 Abnormally high rainfall conditions limited
  access to work sites because of Golf Course
  access ("no cart" days).
- Abbreviated work schedule by equipment operator due to son's cancer treatments
- FEMA remapping of Moore's Mill Creek floodplain caused redo of construction plans
- Bankruptcy by contractor providing equipment/manpower for project (= loss of equipment, manpower toward end of project)



# Be Informed. . . Get Involved!

Contact <u>Your</u>
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Basin Facilitator



or

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